

ABSTRACT OF THE DISCLOSURE

A plurality of radiation image signals respectively representing a plurality of radiation images of an object, which radiation images have been formed with several kinds of radiation having different energy distributions, are obtained. An energy subtraction image signal is formed from the plurality of the radiation image signals. The energy subtraction image signal is formed as an energy subtraction image signal having a pixel density lower than the pixel density of each of the radiation image signals. The energy subtraction image signal is efficient for transfer to an external device, storage in an external device, and outputting of a visible image with an output device.